CVN Medical Department Clinical Services

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Disclosure Statement

CAPT Paul Kane and all others involved in the planning, development and presentation of this CME activity provide the following Disclosure information:

"Nothing to disclose"

Reality v Expectations

Reality

- CVN Medical department represents the third most capable medical care afloat behind TAH and Large Deck amphibs
- Robust Primary care, Prev Med, military medicine and occupational medicine
- Limited surgical, mental health, physical therapy, inpatient, lab, x-ray, pharmacy and emergency response capabilities

Expectations

- Medical will serve as a fully functional health care system for 5000+ members of an industrial/operational community with EMS services, Full spectrum surgical care and ICU/Inpatient facilities, extensive outpatient primary care/occ med/prev med, PT, Mental Health and full service lab, pharmacy and radiology

Your Job

e command to **bridge** the gap between **Reality** and **Expec**

Clinical Services Overview

CNAFINST 6000.1 Series Ch 7

- Medical Response Team (aka EMS)
- Surgical Services/Anesthesia Support
- Military Sick Call/Brig Sick Call
- Inpatient Services/ICU
- Physical Examinations/Aviation Medicine
- Substance Abuse Rehabilitation Program
- Clinical Psychological Services
- Physical Therapy
- Women’s Health

Medical Response Team (MRT)

- The MRT is an extension of the Medical Department for all shipboard emergency responses. Individual injuries, **not mass casualty**.
- Underway - Minimum of **2 teams** consisting of 4 corpsmen each.
  - Names posted on WQS bill.
  - 2nd team to muster in main medical during response.
- Homeport: 1 team after hours capable of **BLS** services.
- MRTs drill **monthly** at a minimum.
- Hand held **radio**(s) is a must for MRT.

MRT Equipment

- Oxygen/Suction/Bag-Valve-Mask device.
- Trauma Bag w/ bandages, splints, gloves, IVF, instruments, oral/nasal airway, c-collar, etc.
- Defibrillator/Monitor or AED
- Stretcher
- Drug Bag with ACLS capability i.e. IV access, airway, laryngoscope, ETTs, etc.
- MRT equipment shall be inventoried on a daily basis and after each use. Written documentation is required
- Debrief every serious case/death

Personal Experience

- Medical works closely with DCC and OHO/Weps to arrange for transport between decks and through tight spaces
- DCC is like 911: dispatches MRT to scene
  - Medical Emergency over 1MC
    - DCC v MRT on scene
    - Pros and Cons to each
- MRT typically on scene within 4 minutes
- “Walking Ambulance”- they carry all equipment with them to the scene in pre-packed back packs

Surgical Services

- 1 General Surgeon attached to each CVN
- At Sea: Emergency Surgical Care shall be readily available at all times.
- Foreign port: Surgical services identified by Husbanding Agent should be visited by SMO.
- Homeport: Procedures requiring General, Spinal or Regional anesthesia shall not be performed in homeport, or CONUS ports with MTF or civilian medical center.
- A risk-benefit analysis/informed consent is required before any surgical procedure. MEDEVAC shall be included in the equation.
- SMO to discuss with CO policy regarding elective surgical procedures and notification. CO to be notified of all emergency procedures and surgery requiring general anesthesia.

Personal Experience

- Train like you fight, Fight like you train
- Obtaining permission to perform some elective cases at sea helps the Surgeon/Techs/Anesthetist stay current, learn equipment and improve efficiency for eventual emergency
- You don’t want the first OR case on your ship to be the first time the OR is used or that the OR team does a case together

Anesthesia Support

- Anesthesiologist/CRNA required for all u/w's.
- Discourage use of Gen Anesthesia for elective procedures.
- Conscious Sedation privileges required from TYCOM.
- In the absence of Anesthetist/Anesthesiologist, GA will be utilized in life and limb emergencies only. The ship's surgeon in concert with SMO will determine if GA is required (this is a very rare situation).
- The Anesthetist/Anesthesiologist assigned to the ship is responsible to the SMO to ensure all equip/supplies are readily available.
- Same standard of care for Oral Surgery patients.

Crash Carts

- Two Crash Carts required in the Medical Department:
  - Treatment Room (Main BDS)
  - Medical Ward / ICU
- Anesthesia cart shall also be stocked appropriately to handle “code” situation in the Operating Room
- Crash Carts shall be inspected on a monthly basis and after each use. Defibrillators, suction units and O2 tanks shall be checked daily per PMS procedures and in accordance with manufacturer’s recommendation. Written documentation required. Tamper seals shall be utilized.

Treatment Room / Main BDS

- To remain open and manned continuously, except under specific approval of CO.
- The Treatment Room/ Main BDS is essentially an ER during routine evolutions and a BDS during GQs.
- The following equipment/supplies shall be available at all times:
  - Oxygen OR table Crash Cart
  - OR Lighting Sharps containers Main BDS supplies
  - Defibrillator Suction Vital signs monitor

Beach Guard Medical Support

- Anchored out/Beach guard established by ship
- Provide BLS level of care, 1st Aid and safety screening of personnel transiting to / from ship.
- Minimal manning is 1 Hospital Corpsman with hand held **radio** and the following minimal equipment and supplies:
  - IV Fluids/supplies, litters, suction device, resuscitator (ambu bag), splints, bandages and dressings
  - Other equipment and supplies as dictated by local environment and resources.
- **Contact numbers** for ashore medical, ambulance and police services supplied by Husbanding agent.
- **Policy** for Duty MO contact and Management

Sick Call

- Minimum: Daily. Accommodate ship's schedule and all duty sections, especially at sea.
  - **Triage** at entry, can give **appointments**.
  - Worked well once crew was educated
- **Documentation** of all care (written with signature and stamp or TMIP-M). Practitioner **counter signature** for corpsmen entries.
- Log maintained with name, social, date, dx, provider and disposition,. Use electronic log (i.e. TMIP-M) when available
- Accident and Injury Reports: MUST be filed and reported
- **Sick call Screener** Program: Great for junior HM's, IDC oversight
- Musculoskeletal Screener (PT). Get PT involved

Brig Sick Call

- Twice daily when brig is open/occupied
- Include an inspection of sanitary conditions.
- Performed by Senior member of duty section
- Medical Department Journal Entry is required.
- A Medical Officer shall be designated as Brig MO and kept informed of medical issues and treatment provided

Inpatient Care / Ward Management

- Ward: open away from homeport or no MTF
- Ship’s Surgeon: Ward Medical Officer, reports to SMO.
- Ward shall be manned by trained and monitored personnel 24/7 when there are admitted patients
- Minimum capacity: 40 Ward beds, 8 isolation beds (2, 4 bed isolation rooms) and 3 ICU beds (unless granted TYCOM waiver) for total of 51 beds.
  - **Temporary Reconfiguration** is Permitted
- All patients requiring ongoing treatment or observation must be admitted utilizing appropriate forms.

Inpatient Care / Ward Management (2)

- Admitting privileges are granted to Medical Officers.
  - Clinical Psychologist may admit if appropriately privileged
- All admissions require notification of member's DIVO, PSD (severe illness) and CO/XO.
- Notification of NOK by member is strongly encouraged.
- In-patient records shall be IAW MANMED and BUMED 6300.3B
- Discharge Summary/Narrative Summary:
  - Adm dx/date Disch dx/date Disch Condition
  - Duty Status F/U Meds+Instructions

Inpatient Care/ Ward Management (3)

- Medical Hold- at sea, can't discharge to shore-based MEDHOLD or to Con Leave. May have to keep on ward for safety reasons
  - Discharge to MEDHOLD in Med Dept
  - Do not use ILO admission
- SIQ/Light duty- same as ashore
- Short Form (539)- if admitted for < 48 hours

Intensive Care Unit

- To be utilized in same manner as shore-based ICU, for patients in serious condition and those requiring continuous monitoring.
- All Medical department personnel working in the ICU shall be appropriately trained and monitored by the Ship’s Nurse.
- When the ICU is occupied, a **Medical Officer or Nurse** must be **present** within the medical spaces.
- ICU shall have 3 beds, to include monitors and required equipment/supplies, unless specifically waived by TYCOM.
- NOK shall be promptly notified at the request of the conscious patient.

Physical Examinations / Aviation Medicine

- Medical Department responsible to ensure all necessary physical exams, are available, completed, submitted and followed-up in a timely fashion and IAW MANMED and other specific agencies.
- Direct oversight of operations including review of PEs, waivers and submissions will be the role of the SMO and CVW FSs as directed by the SMO.
- Lab / X-Ray submissions to medicals record shall have documented review by practitioner.
- Flight Deck BDS shall be manned IAW ship’s policy by trained and competent personnel under the guidance and oversight of SMO or assigned CVW F.S.'s. Typically 2 qualified HM’s during continuous Flight Ops.

Substance Abuse Rehabilitation Program (SARP)

- Mission: Treat and Prevent alcohol and substance abuse and dependence. Usually provide Level I Treatment and aftercare for level II and III
  - Schedule Level II and III ashore. Complete all evaluations from referrals from departmental/command DAPA's.
- SARP Director reports clinically to the Clinical Psychologist (LIP) and administratively to LCPO and DIVO. Usually not an HM.
- Services IAW BUMED 5353.4 (series) to include preceptor program and reporting requirements.
- Additional utilization of SARP personnel should be based on local needs and capabilities of personnel.
  - Stress Management Anger Management
  - Suicide Prevention Outreach programs

Clinical Psychology

- Mission: Treat and prevent psychiatric disorders. Provide psychological counseling and evaluate the acute psychiatric crisis.
- Clinical Psychologist reports to SMO.
- Psych Tech, if assigned reports clinically to Psychologist
- MH admissions: M.O. management and review if meds required or not within scope of privileges
- Supervise SARP Director and evaluate all patient's referred for treatment by SARP.
- Engage in Health Promotion activities (Stress/Anger Management, suicide prevention, etc.)

- *NB: Clinical Psychologist is a lifesaver for shipboard management of mental illness and crisis intervention but is not a reason to accept known psychiatric cases for sea duty.*

Physical Therapy

- Mission: Treat and Prevent musculoskeletal disorders.
- Physical Therapist reports to SMO.
- Physical Therapy Tech reports to PT.
- Musculoskeletal disorders/conditions admitted require MO management.
- Engage in Health Promotion activities (healthy back, injury prevention, etc.).
- Can be privileged to see patients musculoskeletal conditions primarily.

Women's Health Issues

- Women's Health Exams
  - Required annually
  - Performed IAW current clinical guidelines
- The annual exam includes, but is not limited to the following:
  - Pelvic/PAP Exam
  - Breast Exam/Thyroid exam/BP evaluation
  - Mammography. A baseline @ 40y and screening Q1-2y
  - Family planning, BC, STD, and nutritional counseling.
- All medical staff shall be familiar with "Provision of Standbys During Medical Examinations" CNAFINST 6320.1.
- Attempt to complete in port to avoid delays in PAP results

Pregnancy at Sea

- OPNAVINST 6000.1C and NAVADMIN 157/07.
- Pregnant servicewoman are prohibited from being onboard during routine u/w periods if medevac to emergency OB/GYN care is >6 hours
- Not intended to allow routine ops at sea
- Allows flexibility for short u/w such as berthing changes, ammo/stores on/off load, local transits
- Pregnant servicewoman can work shifts.
- Shall not remain aboard beyond 20th week

Clinical Instructions

- The following issues are considered high visibility programs and require written Medical Department guidance in SORM or Ship's Instruction format:
  - Management of Alleged Rape Victims - Have 5-10 kits/cruise.
  - Management of Intoxicated Personnel - Involve CMC, XO, SARP
  - Management of Personnel with Suicidal Ideation
  - Critical Incident Stress Debriefing
  - Competency for Duty Examinations
  - IV Conscious Sedation

CVN Medical Department Ancillary Services

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Ancillary Services Overview

CNAFINST 6000.1 Series Ch 8

Pharmacy

CSIB

Lab

WBB

Radiology

Optometry

Sterile Supply

Pharmacy

- Limit access
- Pharmacy Tech: Key individual, Ensure they are trained and trustworthy
- Deployment Maintenance Medications
  - P-MART (Pre-Deployment Medication Analysis and Reporting Tool)
  - TMOP (Tricare Mail Order Pharmacy)
- OTC Program

Prescription Policies

IAW MANMED Ch21

- ID confirmed by 2 identifiers before dispensing
- No civilian Rx
- No self/Family controlled substance Rx
- Written/electronic scripts only, no verbal
- Timely Rx fill: w/in 30 days/ 7 days for Sched II
- Limit quantities: 90 days / 14 days for Sched II-V
- IDC Rx: no Controlled substances or IV meds
- Written with appropriate pt ID, instructions, signature and stamp, DEA# for Controlled substances, etc

CVN Pharmacy AMAL/Formulary

- NAVMEDLOGCOM publishes electronically
- Local Formulary as authorized by SMO
  - No additional budget for non-AMAL meds
  - Non-AMAL controlled meds require TYCOM approval
- Changes via ACR: applies to all ships in class
- CNAF Submits updates with input from fleet
  - Take requests anytime
- Have formulary available for providers

Controlled Substances

- Responsibility
  - **Senior Medical Officer** is **responsible** for requisitioning, dispensing, survey, loss and procedures pertaining to usage of all controlled medicinals
  - Each ship must maintain **detailed** records
  - Purpose is to **affix accountability** for receipt, custody, transfer, survey, dispensing, loss, and to prevent unauthorized use of controlled medicinals
  - NB: THIS IS A **BIG DEAL**
  - This will get you **fired** if you don't do it

Controlled Substances

- Controlled Substance Bulk Custodian
  - Must be an Officer assigned in writing, usually the MAO
  - Can not be a Medical or Dental Officer with prescribing authority
  - Can not be a Supply Corps Officer
  - Only Controlled Substance Bulk Custodian or SMO is authorized to sign for receipt of controlled medicinals arriving on board
- Controlled Substance Working Stock Custodian
  - Pharmacy Technician is the custodian of the working stock

Controlled Substances Inventory Board

- Appointed in writing by CO
- 2 of 3 members must be officers
- Third member may be non HM SCPO/MCPO
- Inventory
  - At least Quarterly, Recommend monthly while u/w
  - Upon change of Bulk Custodian or Pharmacy Technician
- CSIB SOP maintained in Medical
- Reports by senior member to CO

Controlled Substances

- Security
  - Limit access
  - Safes for bulk stores, working stock. Breakout meds under lock and key for ward or duty crew emergency dispensing
  - Safe combinations changed upon personnel transfer, new custodian, compromise of combination or at least yearly
- Dispersal of Controlled Meds
  - Planning for combat / mass casualty dispersal of narcotics from bulk stores to BDS important

OTC Program

- Must Follow SOP
- SMO approved meds
- Limited Quantities
- No repeat OTC Rx
- Med Record Entry required
- Expedites tx of minor illnesses/injuries

Disposal of Medicinals

- **Nothing goes over the side**
- Pharmacy shall maintain a Survey/ Destruction Log for non-controlled substances
- Check local / state regulations in port
- Controlled Substances destroyed in accordance with MANMED Ch. 21

CBR Drugs

- Centrally stored for security and inventory
- Need Distribution plan SOP
  - Exercise distribution plan
- Store in locked cabinet not accessible to all hands
- Monthly inventory as a single block at discretion of CSIB chair if stored in pilfer proof packaging

Laboratory

- Not a full spectrum lab
- Currently use Vitros, Transitioning to Piccolo
- Manning: Two advanced lab techs
- Most routine tests available
- Microbiology limited
- Manage the Walking Blood Bank/Blood Storage if CVN participates
- No INR, quantitative HCG, drug levels, antibody testing, advanced immunology labs or heavy metals (except lead)
- JBAIDS with monthly tests

Available Tests

- CBC
- Cultures plates with Antibiotic sensitivity: Amp, Gent, E-mycin, Oxacillin, Clinda, Vanc, Augmentin
- Chemistries: Chem 7, LFT’s, Ca/Mg/PO4, Alb, Uric Acid, Amylase, Cardiac enzymes, Glucose
- Lipids
- ABO blood typing
- UA, Urine HCG
- Monospot, Rapid Strep, Rapid HIV

Walking Blood Bank/Blood Storage

- Emergency use only
- Required to have prescreened donor list
- 10% of ship's company
- Screening shall include completion of DD-Form 572 and provider review and sign off at a minimum
- Recommend that WBB participants donate blood within past 12mos & can request results
- Optional Refrigerated PRBCs (shelf-life 30d)
  - 20 units max, type O negative
  - Initial supply & continuous resupply while u/w

Laboratory Oversight

- Technical assist visits
- Copy of assessments and corrective actions kept on file
- Supporting MTF:
  - Technical consultant
  - Conduct assessment, copy to SMO for corrective action
  - Provide training
  - Establish proficiency testing
  - Verify ability to perform shipboard lab procedures
- Maintain lab test SOPs
- Document quality control, QA, maintenance
- CLIP (Clinical Laboratory Improvement Program) requirements
  - MTF lab inspectors annually inspect ship's

Radiology

- 1 advanced X-ray tech
- Digital plain films and portable U/S
- Teleradiology via MEDWEB for radiograph interpretation after provider read on board
- Digital radiology CDs must be kept onboard for 5yrs
- Equipment certification performance testing required every 2 yrs
  - BUMEDINST 6470.22 series
  - Schedule with MTF Radiation Safety
- Operation without current testing requires TYCOM waiver

Lab / X-ray Results

- Must track to make sure loop is closed.
- Logs kept of all testing & results
  - labs, biopsies, paps, X-rays
- Results to be signed off by provider (name, date) & filed in patient health records
  - Ensure this happens in a timely fashion
  - This is an inspectable item

Optometry

- 1 ophthalmic tech on board
- Eye lane with slit lamp, autorefractor, refractometer, automated lensometer, puff tonometer
- Single vision spectacle fabrication lab onboard at sea
- Tech can refract with SMO approval in writing
- Flight Surgeons or SMO may do refractions
- Frames of Choice program
- Expensive optometry AMAL

Sterile Supply

- Event-Related Sterilization Authorized if:
  - Assist visit from MTF CSR representative
  - Proper wrapping, labeling, biological indicators
  - Sterilization Log
- All sterile gear to be opened/inventoried during yard periods > 90d

Questions?